

REMARKS

The present application stands with the drawing objected to for failure to label the elements 11-16 in FIG. 2. Replacement sheet 1/2 enclosed herewith has added the requested labels to FIG. 2.

The specification in the last paragraph of page 2 has been objected to for lack of clarity. That paragraph has been amended above.

Claim 1 was objected to for the use of the word "action" rather than "section". That amendment was made above.

Claims 15 and 19 were objected to a lack of an antecedent basis for the recitation of "the first module." Applicant doesn't understand that objection inasmuch as the originally filed parent claim 13 includes the recitation "a first module" on line 7.

Claims 1-6 and 13-18 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the cited Ling et al. reference patent (Ling) in view of the cited Harikumar et al. reference patent (Harikumar). Claims 7-12 and 19-24 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Ling in combination with Harikumar, and further in view of the cited Simeon reference patent (Simeon). For the reasons below, the amended claims remaining in the application are believed to be unobvious over the cited references.

Independent claim 1 has been amended to include the features of previous claims 7 and 8, which have been canceled. The other independent claim, namely claim 13, has been amended to include the features of previous claims 19 and 20, which have been canceled. Reference symbols in parentheses have been deleted from all the claims.

As noted, the Examiner rejected previous claim 8 (now corresponding to amended claim 1) and previous claim 20 (now corresponding to amended claim 13) under 35 USC 103(a) over Ling in view of Harikumar further in view of Simeon. These rejections are respectfully traversed. It is respectfully submitted that Simeon does not disclose that which the Examiner says it does. Thus even if the skilled person in the art were to combine the teaching of Ling, Harikumar

and Simeon, the present invention according to amended claim 1 would not result. Specifically, Simeon does not disclose nor teach an all-pass filter adapted to achieve a low-phase pulse response of the transmission system. Hence a *prima facie* valid rejection of obviousness against amended claim 1 cannot be made.

What Simeon discloses is a time domain filter (equalizer), which compensates for intersymbol interference caused by a communication channel. Simeon's approach is directed to a shorter equalizer having fewer coefficients than in the prior art he acknowledges. In Simeon column 5 lines 56 to 59, there is a reference to an "all-pass filter" in the context of an iterative process to adapt filter coefficients. In the first step, the first filter tap is set to 1 and all other filter taps are set to 0. The filter then does not modify a signal in any way. In other words the filter output is the same as the filter input. This special "identity" filter is denoted by Simeon as an "all-pass filter". Such a filter alters neither amplitude nor phase of a signal.

In contrast in the present invention according to amended claim 1, an all-pass filter is applied which deliberately changes the phase of an input signal such that the overall pulse response has low phase. This is particularly advantageous, as explained on page 6 lines 1 to 10 of the present application.

The above comments with respect to amended claim 1 apply also with respect to the other amended independent claim, claim 13, which has been amended to include the features of previous claims 19 and 20.

In view of the foregoing, allowance of the amended claims and passage to issue of the subject application is respectfully requested. If the Examiner should feel that the application is not yet in a condition for allowance and that a telephone interview would be useful, he is invited to contact applicants'

undersigned attorney at 973, 386-8252.

Respectfully submitted,

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